

Ware handling solutions for bottle manufacturers

JIM THORNLEY DESCRIBES A TAKEOUT ARM SOLUTION THAT CAN INCREASE OUTPUT, REDUCE DOWNTIME AND REDUCE COSTS

glass bottle producers are facing growing pressures to reduce cost and, at the same time, increase output. This is an ongoing challenge for managers, who on the one hand are responsible for cost reduction, but who must also adhere to rigorous production schedules and achieve record levels of output with existing equipment designs.

In pursuit of this mandate, progressive bottle producers are keenly interested in exploring new ways to increase output, reduce downtime and reduce costs. One such bottle producer contacted Ramsey a few years ago and asked the company to investigate the possibility of using silent chains in place of the poly-belts in their Take-Out Arms (TOA).

POWER TRANSMISSION

This customer was experiencing a significant amount of downtime and productivity loss as a direct result of the poly-belt drives failing in the TOAs. Often the belts became shredded or broke. Even if the belts did not break, they became elongated to the point that bottle handling was greatly affected and the TOA had to be replaced. It was not uncommon for this customer to replace, over the course of a week, as many as six or eight TOAs on one 10-section machine due to poly-belt failure.



A RAMSEY TAKEOUT ARM IN ACTION ON A 10-SECTION DOUBLE-GOB

As a result of this customer's request for help, Ramsey engineers went to work on fitting one of their TOAs with the Ramsey Solution. Ramsey completely eliminated the poly-belt system, replacing it with steel, silent chain and sprockets specially designed for power transmission.

This transformation was an immediate success; the Ramsey Solution virtually eliminated down-time losses. When the customer realised that TOA drive life was increased by years, the company soon began to replace all the poly-belt driven TOAs throughout the organisation; today it has replaced over 300 poly-belt drives with the Ramsey Solution.

EXTENDING TOA LIFE

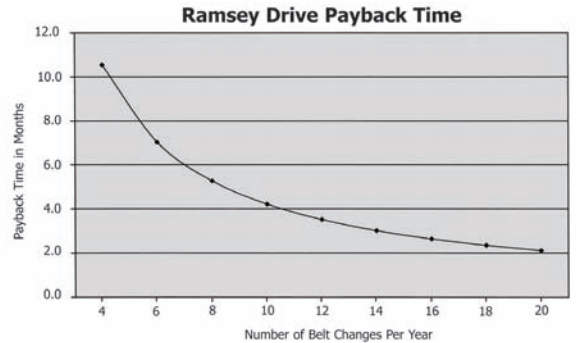
Ramsey engineers have developed a solution that greatly extends the life of TOA drives. Using high performance RPV silent chains to replace heat-sensitive drive belts, Ramsey's TOA drives can provide more than 10 times the life of a typical belt-driven arm.

Because the drives are made from hardened steel components, belt stretch is eliminated and precision registration is maintained throughout the life of the drive. The bottom line is less downtime, reduced maintenance cost and higher output, which simply translates into more profit.

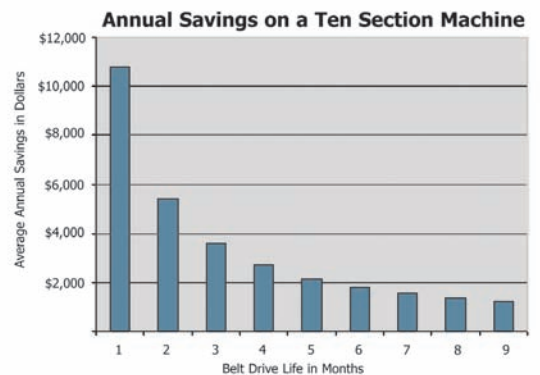
There are two options: one is a retrofit kit that provides Ramsey components which fit into an existing drive case; this option is available to replace most existing belt drives and is the most economical option for most companies.



A RAMSEY TAKEOUT ARM



* Results based on retrofitted 6 1/4" Ramsey take out arm in a high production bottling plant.



* Results based on belt and chain replacement costs only. The annual savings due to reduced downtime would be even greater.

MEETING SPECIFICATIONS

Ramsey also offers a complete TOA which includes a new high strength aluminium case fitted with Ramsey components. The TOA drives can be engineered to meet exact specifications, with options including shear pin sprockets to provide overload protection. Years of testing on high speed production glass lines have shown that belt-driven TOAs do not provide the same durability and life. ■

ABOUT THE AUTHOR:

Jim Thornley is Vice President at Ramsey

FURTHER INFORMATION:

Ramsey Products, Charlotte (NC), USA
 tel: +1 704 394 0322
 fax: +1 704 394 9134
 email: sales@ramseychain.com
 web: www.ramseychain.com

WORLDWIDE CONTACTS:

UK: David Foden (tel: +44 1484 358856; fax: +44 1484 348715, email: david.foden@RamseyChain.com)
 THE NETHERLANDS: Gerrit Hageman (tel: +31 74 2503308; fax: +31 74 2506485; email: Euro.Sales@RamseyChain.com)

Reprinted from issue eighteen 2008 Glass Worldwide